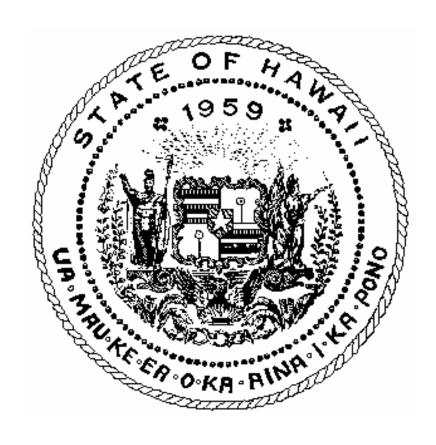
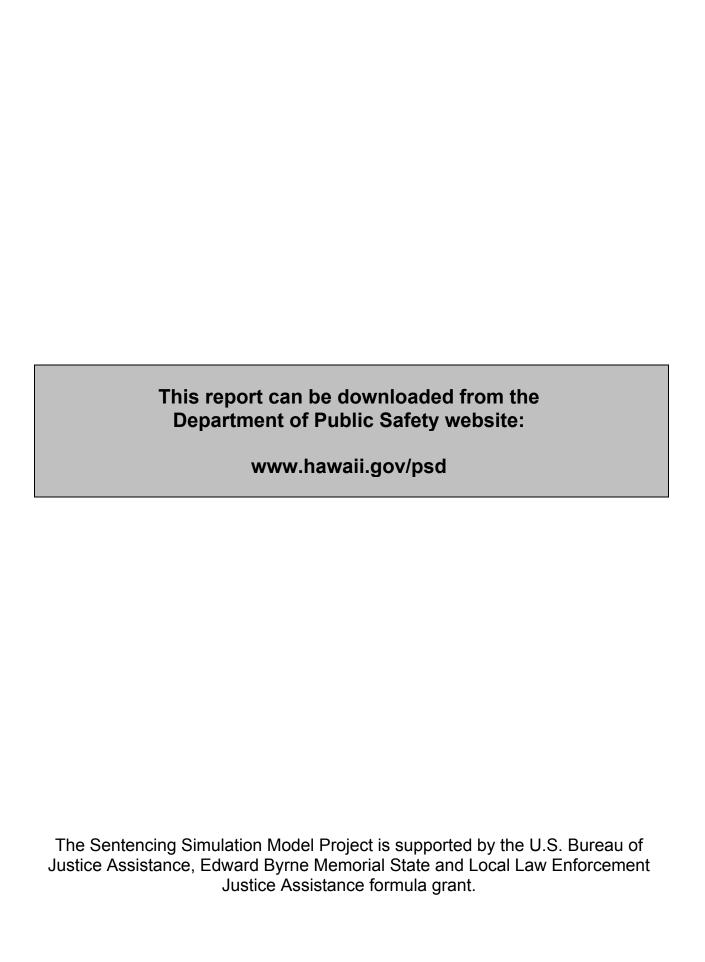
SENTENCING SIMULATION MODEL PROJECT



ANNUAL REPORT 2002

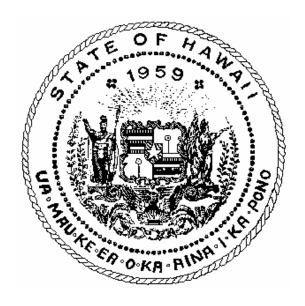
January 2003



SENTENCING SIMULATION MODEL PROJECT

of the

CORRECTIONS POPULATION MANAGEMENT COMMISSION



Corrections Populations: Trends & Projections (1993-2007)

ANNUAL REPORT 2002

January 2003

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The use of a simulation model in order to do forecasts of criminal justice populations is complex in nature and often requires years for proper development and implementation. The Sentencing Simulation Model Project (SSMP) has been fortunate enough to have a national expert in criminal justice forecasting contribute his services to its efforts, and progress things to an advanced level in a relatively short period of time. That said, the Project cannot express enough gratitude to the invaluable consultation given by Dr. Pablo Martinez, Professor, Department of Criminal Justice, Southwest Texas State University (and formerly the Director of Special Projects at the Texas Criminal Justice Policy Council). Dr. Martinez has shared his many years of knowledge and experience in constructing, developing, and maintaining a sentencing simulation model and producing criminal justice forecasts. His instruction and advice have been a key force behind the milestones reached and obstacles overcome by the SSMP to-date.

The construction and maintenance of a criminal justice system simulation model involves pulling together and making sense of data collected and/or researched from a host of different State criminal justice agencies. Currently, this includes: Department of Public Safety, Hawaii Paroling Authority, Adult Probation Division, Hawaii Criminal Justice Data Center and Crime Prevention & Justice Assistance Division – Department of the Attorney General, and The Judiciary. Without the knowledge and assistance from agency personnel, the ability to navigate the data from within each agency and crossagencies would have been a task of epic proportions. The SSMP wishes to express its appreciation to the following people and agencies for their assistance in providing/researching data, maintaining current data systems, and sharing their expertise on their data and systems:

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EXECUTIVE SUMMARY

The Sentencing Simulation Model Project (SSMP) falls under the purview of the Corrections Population Management Commission (CPMC). One of the mandates of the CPMC is to "... recommend to the appropriate authorities, cost-effective mechanisms, legislation, and policies to prevent the inmate population from exceeding the limits established [by statute]" and that the recommendations should include estimates of fiscal impact. (Section 353F-3, Hawaii Revised Statutes) In order to accomplish these goals, the Commission established and oversees the Sentencing Simulation Model Project (SSMP). The goal of the SSMP is to produce forecasts of the prison, parole, and probation populations. This includes gathering, warehousing, and analyzing data from various criminal justice agencies in the state. The final products are two-fold: annual baseline projections, reported herein, and more detailed simulations of proposed changes to policies and practices.

The first year's baseline projections indicate that past trends will generally continue in the same direction as in the past. This means that prison, parole, and probation populations will be typified by increased growth. Growth is estimated to be slowed, when compared to the previous five- and ten-year periods. The trends and projections of particular note are that:

- The number of sentenced felons in the criminal justice system either under jurisdiction of prison or being supervised in the community while on probation or parole is projected to increase by 14.9% in the next five years (2003-07). This is slightly down from an 18.6% increase experienced in the previous five-year period (1998-2002).
- The prison population is expected to increase at a slower pace in the next five years, increasing by 29.6%. This projected increase is notably less than the population gain that occurred in the previous five years (46.3%). The previous ten years, from 1993-2002, saw the sentenced felon population grow 97.2%.
- Parole and probation populations will also continue to get larger. Again, the rate
 of expansion will be slightly less than experienced in the past. By 2007, the
 parole population is expected to increase by 44.8%, and the felony probation
 population is estimated to rise by 6.5%. These projected increases are steady,
 though less than what had transpired in the previous five-year period.
- Admissions to prison illustrate a gradual shifting of focus, away from offenders sentenced directly from the courts, to parolees revoked and returned to prison and probationers revoked and re-sentenced to prison (i.e., those who already fall under the purview of correctional and community supervision agencies). While the direct sentenced felons group is still projected to comprise the majority of admissions, the proportion of the two groups is estimated to begin approaching parity (53.1% versus 46.9% in 2007). This is in comparison to the average ratio of 58.1% vs. 41.9% occurring over the past five years.

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INTRODUCTION:

SENTENCING SIMULATION MODEL PROJECT (SSMP)

SENTENCING SIMULATION MODEL PROJECT (SSMP)

2002 ANNUAL REPORT

PROJECT BACKGROUND

The Corrections Population Management Commission (CPMC) is charged with establishing maximum inmate population limits for each correctional facility and recommending cost-effective mechanisms, legislation, and policies to prevent those limits from being exceeded. Commission members represent the criminal justice system (law enforcement, prosecution, defense, courts, corrections, and parole) and policy makers from the legislature. Administratively attached to the Department of Public Safety, the CPMC is required to provide fiscal impact statements along with its policy recommendations (section 353F-3, Hawaii Revised Statutes). In order to aid the CPMC in its mission of delineating appropriate planning strategies, the Sentencing Simulation Model Project (SSMP) was created. Under the guidance of the Commission, the overall goal of the SSMP is to provide the Commission with a statewide statistical model inclusive of all aspects of the adult criminal justice system (e.g., prison, parole). The project is to act as a centralized statewide data repository for this information, accessing it for use in the model, and manipulating it within the simulation framework to project systemic changes brought about by revisions to current policies.

PROJECT GOALS & OBJECTIVES

A sentencing simulation model enables one to assess the impact of sentencing reforms on prison populations as well as correctional populations supervised in the community, most notably parole and probation. A model that is well-developed and properly maintained in terms of data compilation and interpretation has the capacity to project corrections populations upwards of five years into the future with relative accuracy. Simulation models are becoming a standard tool across the nation for lawmakers and criminal justice practitioners in efforts to deal with burgeoning corrections populations in spite of financially-strapped legal systems and justice agencies. The State of Hawaii is also no stranger to this correctional resources quandary. Allocation decisions are best made with an intricate understanding of the "ebbs and flows" of the corrections system, a myriad of agencies that impact each other based on individualized policy and procedure. Changes to one area of the system will invariably affect all parts of the

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¹ This assumes that policies and practices in place at the time the projection is made remain unchanged. As changes take place, the length of time that projections will be accurate diminish over time. Baseline projections are not able to take into account the changes that happen subsequent to the initial projections, though these changes will be incorporated into future projections. However, even if policies and practices change, these still will take time to impact the model's initial findings. For example, prison projections are unlikely to be severely impacted within a 3 year period, since many of these changes will take time to enact statistical differences. It is assumed that policy and practices will change from year to year, so that the relative accuracy of the first-year projections will lose varying levels of predictive power after 3 years.

system, and often this "ripple" effect is unforeseeable in the near-term. Sentencing simulation works to extrapolate and manage the intended and unintended consequences of policy changes in a statistical manner. With proper agency data input, the simulation model will be able to examine current policies while also being able to make projections based on proposed changes to existing policies.

The potential impact on correctional resources is an important consideration when significant changes in sentencing laws are proposed. Lawmakers duly request sponsors of sentencing legislation to provide a statement of impact, only to be advised that the technical ability is unavailable in the State (or that it would involve a preliminary study, often requiring unavailable resources and/or time). The accurate profile of existing convicted defendants and the development of tools to predict future criminal offender populations are essential to the efficient management of limited correctional resources. Currently statewide, criminal offender information is fragmented, compiled within two branches of government and three public agencies that supervise the criminal population. In addition, law enforcement agencies at the local- and state-level have additional information that is necessary to understand the flow of cases through the criminal justice system.

The SSMP seeks to gather all data necessary for use in the model. This entails compiling, substantiating, interpreting, and manipulating information submitted by all participating agencies, including: Department of Public Safety, Hawaii Paroling Authority, Adult Probation Division of the State Judiciary, and the Department of the Attorney General's Hawaii Criminal Justice Data Center. Also inclusive of the model are data pertaining to state population (Department of Business, Economic Development, and Tourism) and arrest statistics (Department of the Attorney General, Crime Prevention & Justice Assistance Division). This data is to be warehoused on a computer server dedicated to the SSMP. As the infrastructure of the system develops, agency data will be periodically uploaded to the SSMP data repository, with staff reporting data integrity issues and ensuring uniform data reporting directly to appropriate agency personnel and the Corrections Population Management Commission. Monthly system monitoring reports, consisting of corrections population trends, are to be submitted to the CPMC, along with annual reports. Also, simulation of current and future proposed legislation pertaining to corrections populations will be fielded and the findings reported, at the discretion of the Commission.

The ongoing and persistent attention to statewide corrections data, in both form and substance, ensures that the SSMP is providing accurate projections. A repository of this sort is necessary in understanding all effects produced by specific policy changes, and the results are able to convey explicit population fluctuations and fiscal impacts therein.

MAJOR ACCOMPLISHMENTS

Since the beginning of 2001, the Sentencing Simulation Model Project (SSMP) has been able to develop a working model, produce baseline reports, and continue addressing the structure and data necessary for ensuing micro-simulations. Some of the major accomplishments during this time include:

- Collect and warehouse all data necessary for the model. This includes hundreds
 of thousands of historical and current records from a number of different agencies,
 and essentially linking them together.
- Develop the model for use in baseline and micro-simulations. The first year's baseline projections are reported herein. The Project is in the final development phases of addressing micro-simulation scenarios; initial simulations regarding proposed legislation for the current year's legislative session will be undertaken at the discretion of the CPMC.
- Fully construct and implement a new data program for the Hawaii Paroling Authority (HPA). HPA's past data program was unable to capture data in a way that would be of any use for large-scale statistical analyses. The Project built a new program that would collect data in a more efficient manner, and also assist staff on an operational level (e.g., reports).
- Conduct and assist in audits of agency data. Considerable effort was expended to assist the separate agencies in the improvement of their data, whether it be in terms of collection, enumeration, or production. The Project was a key player in the examination of data from the Department of Public Safety and Hawaii Paroling Authority, providing detailed assessment of problems, methods for addressing these, and providing assistance in cases where the data were corrected.

The above is a short list of some of the primary things accomplished by the project todate (more detailed information and specific activities are offered in the following section). The Project's goals would not have been completed had it not been for the support of agency staff from the Department of Public Safety, Hawaii Paroling Authority, Department of the Attorney General, Adult Probation Division, and The Judiciary. In addition, without federal and legislative support of the project, many of these items would not likely have been completed, much less fulfilled in a timely manner.

PROJECT PROGRESS & ACTIVITIES

The project has identified the data elements required for the model, and secured the cooperation of all agencies in retrieval of this data, current and future. The data has been extracted from all necessary sources to-date, and converted to useable form for the simulation model. Many of the ensuing activities have been primarily geared toward increasing data integrity along with developing the model using the best available data, or manipulating the retrieved data in a manner that is useable for the simulation model.

The data captured for use in the simulation model's projections are inextricably tied to the methods and procedures applied by the agencies themselves. A thorough understanding of the data and verifying its accuracy are necessary in order to provide the most precise and meaningful corrections population projections. Most of these activities have been focused on the Department of Public Safety (PSD) and the Hawaii Paroling Authority (HPA), both agencies with the most problematic data, but the agencies that capture the data that is most important to the structuring of model projections.

Persistent effort has been expended by the SSMP to assist the various agencies to get their data in order. During this time, work on the simulation model, in a semi-skeletal form, has been performed. As all data phases are completed in full, the model will be fully operational, and useable for micro-simulation purposes. Micro-simulations (i.e., case-based) are obtainable in the meantime, though various methods will have to be used to bridge problematic data (i.e., missing or erroneous). The new data management systems recently put into use by PSD and HPA show significant improvement in data quality and the Project's ability to do research on them in the future without the need to heavily sample data or limit projections. So, as time passes, the need for the SSMP to bridge problematic data will dissipate. This will help in the creation of more accurate projections, based on statistics that are not limited by the inherent error caused by sampling or other data techniques used to acquire them. At current, baseline projections (e.g., macro-simulations) have been produced and are reported herein; the infrastructure for producing case-based simulations is ongoing, will develop in-full as the current data input into the existing data systems, and as a function of time, compile into reliable and valid recent historical data.

In the ending months of 2001, SSMP staff constructed a new database program for the Hawaii Paroling Authority (HPA), effectively replacing the old system. The new database was developed in order to make HPA's database functional in terms of research. While helping HPA's operational data needs, the ultimate goal for SSMP is to have the database be able to capture data necessary for the model (which was previously impossible with the program as it was implemented at the time). Other aspects of the new system that have been ongoing are preliminary construction of electronic audit tools and the development of report-generating tools (e.g., HPA's annual report). Additionally, once the new LSI-R assessment tool is implemented at the agency, the SSMP will modify the existing system to fit the new instrument. The new system is currently being fully implemented at the HPA, with plans for continued

training, revisions, and audits, all geared toward increasing the extensiveness and quality of data that HPA captures.

In order to ensure proper data interpretation and accurate population trends reporting to the CPMC, the project has formed a working group composed of personnel from the participating agencies who work directly with agency-specific data and management information systems. This group is seen as a necessary link between personnel working with data across agencies, allowing the formation of a more unified correctional data set, the crux of the SSMP's data to be used in simulations and projections. This working group is coined the "CPMC Data Management Group (DMG)". Present at the meetings have been representatives from the Department of Public Safety, Hawaii Paroling Authority, Department of the Attorney General, and SSMP staff.

Agencies are moving toward the use of the LSI-R risk-needs assessment tool in order to better delineate delivery and levels of services for their cases. At the request of the Adult Probation Division (APD), SSMP staff provided an analysis of cases based on their risk-needs scores and their likelihood of recidivating. The analysis while primarily benefiting APD, may be useful in the future as the simulation model expands, and possibly begins incorporating the new LSI-R scores into projections.

The project will incorporate an analysis/discussion of the model's projections, and how these translate into the specific figures in terms of agencies' budgets and fiscal considerations. In order to produce an analysis that is meaningful, it involves a complexity of financial considerations and "what if" scenarios. Preliminary meetings were held with each of the agency staff that were in charge of or most knowledgeable of that specific agency's budget. Agency staff were apprised of what SSMP was looking to accomplish, and that a cooperative approach would need to occur for good financial projections to occur. These meetings were preliminary in nature, as these activities will begin to be re-visited more earnestly in the beginning of the following calendar year.

PROBLEMS ENCOUNTERED

The problems encountered by the SSMP have been focused on the acquisition of quality data from PSD and HPA. Whether it was incomplete, erroneous, or unable to be gathered electronically, data problems were of the utmost concern. In order to address these problems, the SSMP has worked extensively with each agency to assist them in correcting these problems.

The data required for a simulation model used in forecasting future corrections populations is two-fold: historical or archival data and continued input of current data. The collection of historical data is predicated on achieving a minimum of one year of historical data per one year of projections (preferably though a 2 to 1 ratio). So, in order to attempt population projections for five years, a model should try and establish a baseline of five years of historical data, with a preference toward ten years if available.

Each participating agency has its own methods of capturing data. Given the scope and magnitude of the project, the simulation model must rely on electronic data submitted by each, as case records within each agency often number in the tens of thousands. Historical data pertinent to the model have been collected, but discovery of problems related to data integrity and completeness have arisen. The links with the Department of Public Safety (PSD) and Hawaii Paroling Authority (HPA) data have posed the most difficulties. PSD has recently changed over to a new corrections management information system (CMIS). This system is still in the process of being verified for data reliability, incurring numerous system changes and upgrades along the way. This has not allowed the SSMP the ability to extrapolate accurate or complete data; moreover, compiling data to this effect has often been delayed, but given the anomalies in the systematized data, this makes the timeliness of any type of data extraction inconsequential.

Upon initial examination of data submitted by all the agencies, data sampling and audit methods had to be employed due to reliability and validity anomalies. This process included the checking of electronic records against that of the agency's hard copy records. Meetings have been held with specified agency administrators to detail their agency's data issues. These dilemmas must be approached in earnest by the agencies, otherwise the value of the compiled data is severely compromised and the result will prove to be futile to the SSMP efforts at inclusion within the model. As such, these issues must be addressed in-house (i.e., by agency personnel). The SSMP has limited capacities to assist the agencies in gathering the data that they are expected to do without accompanying support. The SSMP has facilitated a better understanding of data elements that need to be changed and offered support, often going up-and-beyond the scope of the project in order to help agencies correct their data inadequacies, system problems, program errors and the like. These labors have, with all intents and purposes, been performed in order to assist the model to achieve the data necessary for model development. However, the project's capabilities and resources to continue this have diminished, and the motivation to continue the adjustments fall back to the agencies themselves. Problems were present with every department or agency's data, and these were to be expected. However, data procured from the Department of Public Safety (PSD) and the Hawaii Paroling Authority (HPA) was, at the outset, especially problematic. This is a pressing issue since data on prison and parole populations comprise the most integral aspects of the model.

Continued assistance has been lent to PSD, to help the department improve their records management system and the data captured within. The production of quality data on behalf of the department is necessary for progress on the simulation model, so any assistance in this regard is seen as benefiting the project in the near- and, more importantly, future-terms. Much of the assistance has involved participating in meetings with PSD's Research and MIS staff, performing data runs, documenting or analyzing the data issues, and designing and generating audit reports.

PSD's data problems are multi-faceted, with many of these problems associated with the "newness" of the computer system, and the switchover from systems in the past. Several changes in management information systems over the past decade have caused historical data to be lost, lacking in research capabilities, erroneous, or incompatible with current data and/or collection methods. Many of these problems are inherent to the process of data migration. These problems are being addressed by PSD, and current input of data is substantially better than past data. Specifically, some of the problems that SSMP and PSD's Research staff have documented: (1) ambiguous admissions/release figures, (2) unclear linkages between current/past offense commitment with current/past prison activity, and (3) inconsistent data completeness (e.g., valid data entry, RMS ability to capture data, or missing data). The SSMP staff has outlined these problems to PSD in terms of how they impact research endeavors, like the SSMP, along with the fiscal and administrative issues that accompany working through these issues. By working closely with PSD's MIS and Research staff, project staff have developed alternative statistical and computerized means to achieve the data needed for the first year of baseline projections (e.g., sampling, deduction). It is the hope that as time goes on, and the computer system matures, less manipulation will be required. This, then, would afford the project staff more energy to dedicate toward developing other aspects of the model (e.g., scope, power, accuracy), besides improving the overall quality and predictive power of the projections.

The SSMP recommended that PSD conduct an audit of data variables. This audit was recently completed by PSD staff, University of Hawaii faculty, and with SSMP assistance.¹ The measurement reconciliation of errant data will help the project to determine areas of weakness in the projections and levels of error to be expected.

Many of the issues uncovered in the assessment of the Department of Public Safety's data, were also present for the Hawaii Paroling Authority and its electronic data capture system. As mentioned, HPA's historical data was unusable in terms of large-scale research. The system in use by the HPA did not allow for a systematic tracking of

¹ "Department of Public Safety, State of Hawaii Corrections Management Information System (CMIS): A Records Verification Study of a Probability Sample of Prisoner Records, 2002" by Katherine Irwin, Ph.D. (Principal Investigator), Joseph J. Leon, Ph.D., (Co-Investigator), and Theresa Fraser (Project Manager). November 2002.

parolees under supervision, past or present. Due to the unsophisticated computer system, HPA was unable to retrieve data specific to an offender without duplication. This rendered any sort of statistical analysis insignificant since the correct data is indeterminable (and inflated in terms of frequency analysis). In order to address this issue, SSMP has developed a new database program for HPA that will help to make data more complete, accurate, and researchable. The project, in addition to developing the new program, migrated all current data and trained all data entry staff and administrative personnel. As long as compliance is accorded the system, the data captured heretofore will now be fully useable in the simulation model (and other research projects for that matter).

In conclusion, the most recurring obstacle to the project has been the integrity of electronic data from various agencies. The project has overcome these inadequacies in the interim by employing various statistical and computer techniques. As agency computer systems mature, the data is expected to become more accurate and complete, and this shows to be the case in most recent data examinations. As these issues then subside, the model can then branch into examining other more complex research areas or adding additional levels of analysis (e.g., inclusion of juvenile system, social indicators, fiscal and budgetary trends, etc.). In short, the expansion of the project and its projections (in terms of longevity of accuracy) is somewhat constrained by the tools it has to work with (i.e., data); shortcomings in this regard will be addressed and accounted for in ensuing projections. As the data elements and structure of the various agencies continue to develop and solidify within the new system, the model will become more accurate and powerful in the scope and breadth of projections and simulations.

While still in its initial phases, the SSMP has noticeably increased the knowledge-base among relevant agencies in regards to their current data. The compilation and analysis of a comprehensive, cross-agency database is the primary component of a simulation model. The process of obtaining this type of database has been accomplished, though the historical data produced are of major concern due to data completeness, reliability, and validity issues. However, as the new computer systems currently continue to acquire adequate data, this will serve as the basis of historical data in the future. Proper development of the model employing the use of these data hinge on each agency's attention paid to these issues and their ensuing resolution. The project has garnered initial support from the agencies to address these issues, providing proposals on how they might address these issues in-house. Progress has occurred with the new databases for each agency, along with the audit of PSD's current system.



CORRECTIONS POPULATIONS TRENDS & PROJECTIONS (1993-2007) STATE OF HAWAII

CAVEATS

A simulation model is based upon various statistical techniques and methods used to achieve projections. This includes the application of sound and reasonable assumptions. This precludes simulations as being an "exact" science, but they provide realistic estimates of figures and trends that are grounded in historical and current data, and the knowledge-base of those directly implementing current policies and practices, along with those working directly with the data. While baseline projections will rarely be perfect and exact, they do provide a foundation of what is reasonably to be expected in future years, allowing that major policy shifts or trends do not occur. The projections reported here are carried out for a five-year term. It is highly likely that within these five years, policies will change and trends will increase or decrease. These changes will be worked into future projection models, but many of these cannot be predicted at this point in time.

The projections presented here assume that policies and practices in place at the time the projection is made will remain unchanged. As changes take place, the length of time that projections will be accurate diminish over time. Baseline projections are not able to take into account the changes that happen subsequent to the initial projections. However, even if policies and practices change, these still will take time to impact the model's initial findings. For example, prison projections are unlikely to be severely impacted within a 3 year period, since many of these changes will take time to enact statistical differences. It is assumed that policy and practices will change from year to year, so that the relative accuracy of the first-year projections will lose varying levels of predictive power after 3 years.

INTRODUCTION & OVERVIEW

The State of Hawaii's correctional and community supervision populations have consistently increased over the past decade. The number of felons sentenced to prison or probation and those serving the remainder of their term on parole, has increased 43.9% over the past 10 years, up from 14,657 in 1993 to 21,088 in 2002 (see chart below). The rate of overall growth has slowed in the past few years, showing smaller percentage increases on a yearly basis. The overall sentenced felon population in prison, on parole, or on probation is projected to increase 14.9% in the upcoming 5-year period; this figure is a continuation of the most recent slowed-growth trends, and down from the previous 5-year timeframe which was witness to a 18.6% increase.

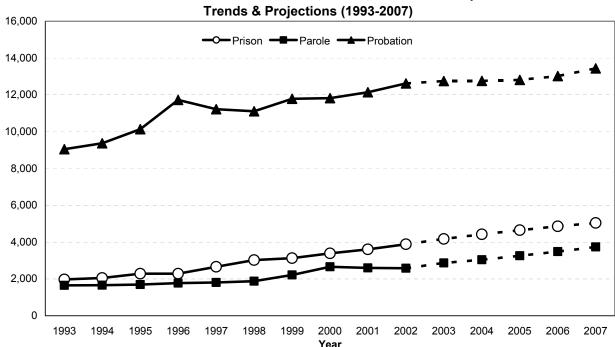


Chart 1-1. Sentenced Felons: Prison, Parole, & Probation Populations

Trands & Projections (1993-2007)

The following definitions are supplied in order to clarify their meaning as used in the projection model and how they should be interpreted in this report:

Sentenced Felon: an offender who has been sentenced by the courts to a prison term (1 year or more) or to a probation sentence (5 years or more). The current simulation model is focused only on sentenced felons. This means that the jail population is not figured into the historical trends nor the projected figures.

Prison: includes offenders incarcerated and sentenced for felony offenses directly from the courts, sentenced felons who had been released on parole from prison and then revoked and returned to prison, or probationers who have been revoked and re-sentenced to prison.

Probation: includes only felony probationers, and does not include misdemeanants.

Parole: includes felons released from prison to serve out the remainder of their sentence under the supervision of the Hawaii Paroling Authority.

PRISON

The prison population has increased significantly over the past decade, up 97.2% since 1993. The increases have been relatively steady during that timeframe, though the rate of growth has generally begun to slow down over the past few years. The projections of the prison population indicate that the past trends will continue in the same direction, however the magnitude of these trends will become less pronounced. The prison population is projected to experience continued growth, but at a slower pace than in the past. The trend downward in the percent change of the population from one year to the next will be maintained (i.e., population increases from year-to-year have been becoming smaller over time in relationship to the overall prison population).

In the next three years, the population is projected to be 4,652 sentenced felons and parole revokees, an increase of 764 from the current 2002 figure of 3,888; and within five years, this is expected to reach 5,039. This reflects an estimated 29.6% increase in the population over the next five years, though a rate less than what has occurred in the previous five-year period (46.3%). The net population growth is anticipated to decline on a yearly basis, meaning that year-to-year percentage changes in prison population are expected to drop in a similar fashion, down from the rate of 7.9% reported in the year 2001-02 to 3.8% in the year 2006-07 (a 0.0% change from one year to the next would indicate that there was zero population growth).

Admissions to prison via probation and parole, in terms of re-sentenced to prison and revocations respectively, are projected to increase 29.3% during this period, from 638 in 2002 to 825 in 2007. Meanwhile, offenders sentenced directly from the courts, are projected to increase by 18.6% during this timeframe, from 786 to 932. In other words, it is projected that there will be an increase in the rate of prison admissions for felons currently in the criminal justice system, either on parole or under a sentence of probation, than for offenders sentenced directly from the court to prison. From 1993 to 2000, felons that had been directly sentenced from the courts, with the exception of one year, comprised between 57-67% of all prison admissions. Beginning in 2001 and projected to 2007, the proportion of prison admissions that are either parole revocations or probation violators re-sentenced to prison approaches parity to felony offenders sentenced directly from the courts, and is projected to be 46.9% of admissions in 2007.

The five-year projections for the prison population are accomplished using the current practices and trends across the criminal justice system in order to delineate future population figures, including projected arrests and convictions, sentences to prison, probation and parole revocations, releases to parole, and sentence completions.

incarcerated in an out-of-state facility."

¹ These figures are for the "assigned count" of the prison population which is "[the] number of inmates under the jurisdiction of a Hawaii correctional facility on a specific date. It includes both inmates who were physically housed in the facility; and inmates who were placed on furlough, in a medical facility, or

Chart 2-1. Prison Population (Assigned Count)¹ Trends & Projections (1993-2007)

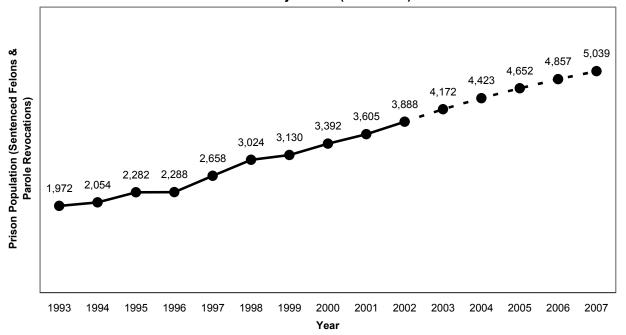
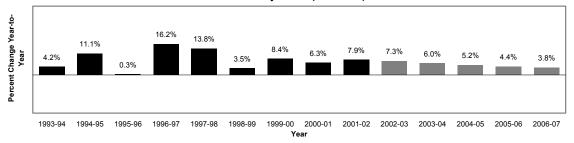


Chart 2-2. Percent Change Year-to-Year Trends & Projections (1993-2007)



- Large growth from 1993-1998, attributable to higher rates of felony convictions, sentences to prison, and increases in parole revocations and probation revocations re-sentenced to prison. Rates of felony convictions pitch to new levels beginning in 1998. In the next 5 years this rate will average 4-8% higher than previous levels in the first half of the decade.
- Moderate growth from 1999-2002, as felony conviction rate slightly declines and levels off, from 26.5% in 1999 to 23.2% in 2002; the number of convictions sentenced to prison decreased during this time from 918 to 786. More pressure seen coming from parole revocations and probation revocations re-sentenced to prison, as these admission types have increased.

Projections for 2003-2007:

Prison population to increase by 19.7% in the next 3 years, and 29.3% after 5 years.
The percentage change year-to-year will continue to decline, an indication that the
population base is getting larger, but also shows that raw numbers of inmates are
remaining the same level or less as years previous.

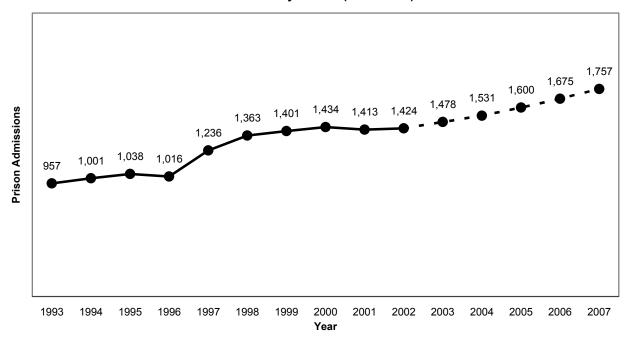


Chart 3-1. Total Prison Admissions Trends & Projections (1993-2007)

- There was a jump in admissions in 1997 and 1998 due to an increase in felony offenders sentenced directly from the courts, and conviction rates and sentences to prison increased.
- Slowed admissions beginning in 1998-1999 as felony offenders sentenced directly from the courts decrease; however, more pressure then from parole revocations and probation revocations re-sentenced to prison.
- The year 2000-2001 showed the first decrease in admissions in 4 years, though there was a small increase in the following year 2001-2002.

Projections for 2003-2007:

Smaller but steady increases in admissions are expected in 2003-2007.

 Increased proportion of admissions of parole revocations and probation revocations re-sentenced to prison.¹

¹ This reflects the model's assumptions of arrests and sentencing and convictions patterns to remain at levels that are currently in place. This is based on gradual increases in the population that has been statistically found to be most highly correlated to arrest for the offenses that are included in the model.

2,000 ■ Parole Revocations 1,800 ■ Probation Revocation 1,600 **Number of Prison Admissions** □ Direct Sentenced Felons 1,400 1,200 1,000 Parole Revocations Probation Revocation Direct Sentenced Felons

Chart 4-1. Admissions to Prison by Type Trends & Projections (1993-2007)

Year / Actual Figures

Trends from 1993-2002:

- The driving force behind prison admissions through 2000 has been felony offenders who have been directly sentenced from the courts. After a peak in 1999, the past few years have decreased to levels resembling figures reported in 1997 and 1998. Two of the past three years have shown a lowered proportion of prison admissions attributable to felony offenders directly sentenced to prison by the court. It is still the majority of admission types and is projected to be so through the year 2007, but, given current practices and policies, arrest projections, and sentencing and conviction trends, this is expected to decrease, thus approaching the numbers of felons admitted to prison as a result of a parole revocation or a probation revocation re-sentenced to prison.
- Increases in the proportion of admissions that are felons either under the supervision of parole or probation continued to increase. Increases in probation revocations resentenced to prison increased in 3 of the last 4 years, while parole revocations returned to prison increased in 6 out of the last 7 years. This trend also coincides with decreases in the number of felony offenders directly sentenced to prison by the court which has decreased in 2 years out of the last 3.

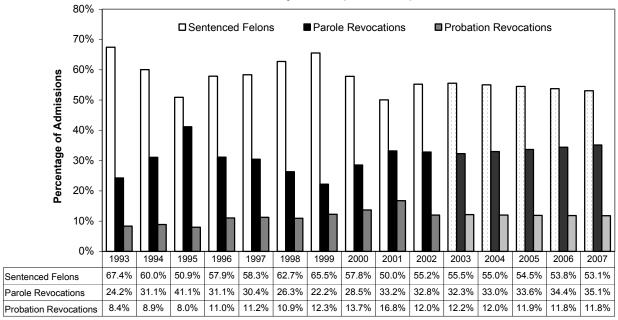


Chart 5-1. Proportion of Prison Admissions by Type Trends & Projections (1993-2007)

Year / Actual Figures

Projections for 2003-2007:

- Projected felony offenders directly sentenced by the courts and probation revocations re-sentenced to prison are expected to decrease slightly during the upcoming years, in line with most recent data; parole revocations returned to prison is expected to slightly increase during this timeframe.
- The weakening relationship between prison admissions and felony offenders directly sentenced to prison from the courts is expected to continue, given current policies and practices remain in place. This is also dependent on the number of arrests and assumptions in regards to sentencing and conviction to prison that are maintained in the model; the model uses the most recent trends as benchmarks on future rates in these instances.

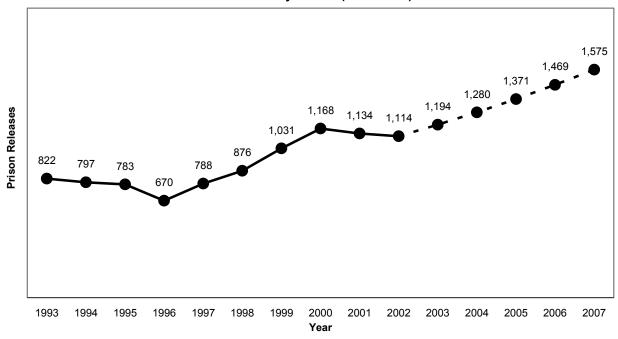


Chart 6-1. Total Prison Releases Trends & Projections (1993-2007)

- There was a decline in prison releases from 1993-1996, with the biggest drop in 1996; this was due in part to a low parole approval rate in that year (26.9%), which was about half the rate of approvals of years prior (ranging between 51.9% and 58.0%). Despite a much larger amount of parole considerations in 1996 (2,082), which amounted to about 70% more than the previous two years, it was still unable to overcome the particularly low approval rate, and releases actually continued to decrease. Another large cohort of releases to parole were considered the following year in 1997 (1,938), but the rate of approval, despite still being low historically for the period covered (33.9%), resulted in a swing upward (in a direction that then continued through 2000).
- From 1996-2000, there were steady increases in prison releases. This was due to a
 combination of increases in sentence completions for a couple of the years, and an
 increasing parole approval rate (which began to approximate the same rate seen in
 the 1993-1995 period. The parole approval rate has remained steady the past two
 years at 55%.
- The past two years have shown a slight decline in the number of prison releases, down 4.6% for 2000-2002 (this is after a 74.3% increase between 1996 and 2000).

Projections for 2003-2007:

 As more prisoners continue to become eligible for parole, as long as the current parole approval rate is maintained at the current level and projected admissions continue to increase, it is expected that releases will then begin to show slight increases on a yearly basis in the upcoming 5-year period.

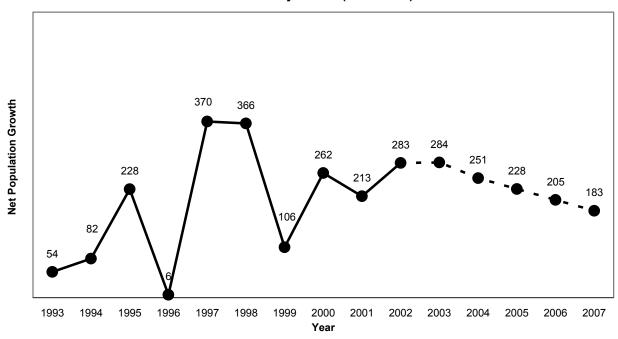


Chart 7-1. Net Prison Population Growth Trends & Projections (1993-2007)

Trends from 1993-2002:

- There was a sizeable overall increase in net prison population growth between 1995 and 1998. Since the population base was notably smaller during this time, the extent of net population growth is more pronounced (i.e., as a proportion of the total population). There was considerable net population growth reported in 1997 and 1998. This was due to an influx of prison admissions during this time without corresponding releases to offset the large net growth.
- From 1999 to 2002, net population growth was steady, though more moderate (especially now considering that the total population base was now higher).

Projections for 2003-2007:

Net population growth for the next few years is in line with the most recent past 3 years. A continued downward trend is expected in 2003-2007 as the rate of releases from prison increase slightly more than prison admissions. This difference is expected to result in a 35.3% decrease in the yearly net population growth when comparing the beginning of the projection with the end (2003-2007).

PAROLE

The parole population under supervision has also increased significantly over the past decade, up 56.5% since 1993. A two-year period between 1998-2000 accounts for a substantial amount of this increase, a rise of 41.5% during this time. The parole population has increased every year since 1993, except for slight decline in each the past two years 2001 and 2002 (-2.4% and -0.5%, respectively).

The projections of the parole population under supervision indicate that the overall past trend during the past decade will continue, with steady increases in the next five years. Overall, it is predicted that the parole population will increase by 44.8% in the period 2003-2007. Again, this is assuming current policies and practices in place continue throughout this timeframe. By 2004, it is estimated that the parole population will reach 3,000 parolees under supervision, and by 2007 this figure is expected to be 3,738.

The number of prisoners eligible for parole is predicted to increase between 2003 and 2007. Following suit, the amount of prisoners considered for parole is expected to steadily increase in the upcoming five years, approaching its highest level since 1996 beginning in 2004. The parole approval rate has remained steady over the past four years, ranging between 53.9% and 58.1%; the past two years, 2001 and 2002, have been at 55.4% and 55.3%, respectively. For purposes of the projection, the model has built in the assumption that the approval rate will remain constant at 55%. If this continues to be the pattern, it is highly likely that the parole population will continue along the expected lines of increase. If this rate fluctuates widely, then the parole population would be affected in the like direction, assuming other variables remain constant, such as rates of revocation and discharges (i.e., if the parole approval rate increases, then the population under supervision will increase; if parole approval decreases, then the population under supervision will decrease). This, in turn, would impact the prison population, though in an inverse fashion (e.g., if the parole approval rate decreases, the prison population will increase, etc.). If the other variables held constant in this example, the *direction* of change would follow suit as mentioned; however, this does not make allusions to the amount or magnitude of change. To estimate the impact of such an event would require a separate simulation model for comparison purposes.

As mentioned previously, predictions of fluctuations as portrayed in the example above are difficult to anticipate; fluctuations or disparate changes from current practices often produce 'in concert' mechanisms and impacts. That is, a large swing in "parole approval rate" will likely be accompanied by potentially offsetting patterns in another variable or set of other variables (e.g., revocation rate and discharges).

The parole approval rate plays a part in fluctuations of the prison population. As an example, in 1996 despite the highest number of parole considerations ever to-date, there was a sizeable decrease in the number of prison releases, due in part to the lowest parole approval rate in the past 10 years (26.9%). The parole approval rate significantly increased over the next four years (from the low of 26.9%in 1996 to a high

of 58.1% in 2000), and releases from prison increased by 74.3%. Remember though that during this time, in spite of increases in releases to previous levels, the prison population continued to grow by 48.3%.

Parole revocations are projected to increase in the next five years, as a function of the increased population under supervision. Using the 1999 study by the Crime Prevention & Justice Assistance Division, Department of the Attorney General, as a benchmark for projecting revocation rates, the number of revocations is expected to increase to 639 by 2007, up from 467 reported in 2002. This amounts to a 36.8% increase in the number of parole revocations during this period. As mentioned before, parole revokees have been admitted to prison in increasing in proportions over the past 3-4 years, and this trend is expected to continue into the future.

Chart 8-1. Parole Population Under Supervision Trends & Projections (1993-2007)

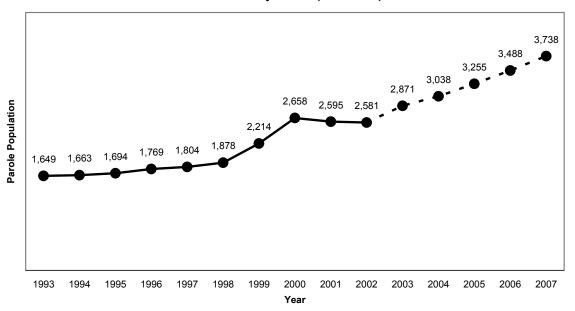
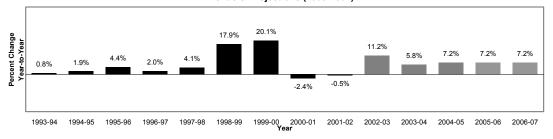


Chart 8-2. Percent Change Year-to-Year Trends & Projections (1993-2007)



• The parole population rose every year between 1993 and 2000, an increase of 61.2% during that time, much of this attributable to a 41.5% increase between 1998 and 2000. Overall, during the 1993-2002 period, a gain of 56.5% resulted. The past two years have shown a slight decrease in the parole population under supervision.

Projections for 2003-2007:

- It is projected that the parole population will continue to increase, gaining 44.8% during this period.
- The parole approval rate, if remaining at current levels, supports the expected growth pattern as releases from prison to parole will continue to increase. The average length of stay a parolee spends on parole before being discharged, revoked, or dropped from the caseload for some other reason, has dropped by roughly 20% during the past two years. The projection uses the most current level as a constant when projecting releases from parole (discharges, revocations, etc.). If the average length of stay for a parolee continues to aggressively drop like it has in the past two years, this will impact the parole population projections in the same direction (i.e., a decrease in the average length of stay will result in a decrease in the parole population).

Chart 9-1. Parole Revocations, Returned to Prison Trends & Projections (1993-2007)

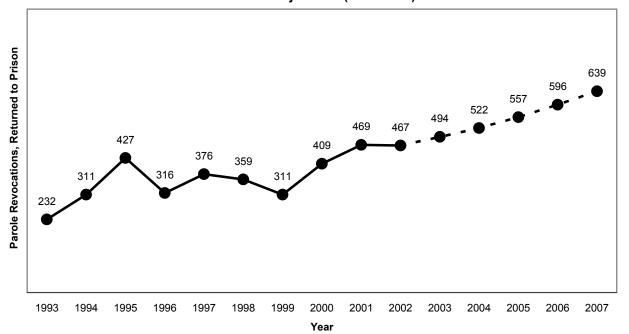
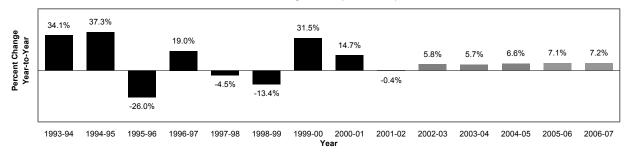


Chart 9-2. Percent Change Year-to-Year Trends & Projections (1993-2007)



• Parole revocations have increased by 101.3% during this period. A spike upward was experienced in 1994-1995, but the following years dropped down to more normalized growth rates. Another significant increase ensued in the year 1999-2000, though this time revocations did not drop back downward and actually increased.

Projections for 2003-2007:

 Parole revocations are expected to increase during this period by 36.8%. Last reported in 2002, this figure was 467; this is projected to reach 639 by the year 2007.¹

¹ The benchmark used for projecting parole revocations is based on the failure rates reported in the 1999 study, "Survival on Parole" (Crime Prevention & Justice Assistance Division, Department of the Attorney General). See references for full citation.

Chart 10-1. Parole Considerations Trends & Projections (1993-2007)

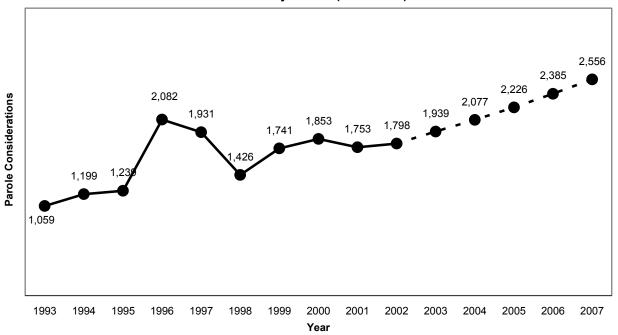
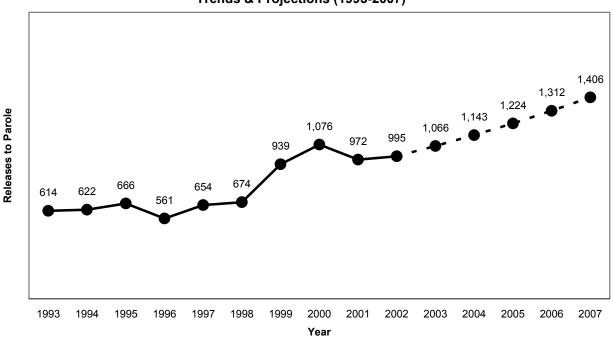


Chart 11-1. Prison Releases to Parole Trends & Projections (1993-2007)



- Parole considerations have increased by 69.8% during this period, from 1,059 in 1993 to 1,798 in 2003. A sizeable increase in considerations was seen in 1996 and 1997; however, the releases during these two years actually dipped below previous years because of low parole approval rates.
- Since 1998, prison releases to parole have increased 47.6%, from 674 in 1998 to 995 in 2002. This is a combination of continued numbers of prisoners becoming eligible for parole coupled with an increase in the parole approval rate (to levels similar to the 1993-1995 period).
- As increased numbers of prisoners have become eligible for parole, a general upward trend in considerations has occurred since 1998, up 26.0% during this timeframe.

Projections for 2003-2007:

- Parole considerations are expected to increase by 58.8% in the next five years, reflected in 150-170 more considerations per year more than the year previous. By 2004, this figure is expected to eclipse the 2,000 mark (a level not previously seen since a height of 2,082 in 1996). At the end of the 5-year projection, the number of parole considerations is expected to be 2,556.
- Releases from prison to parole are projected to continue increasing. This figure is estimated to increase by 41.3%, from 995 in the last reported year to 1,406 at the end of the projection time period. The past few years have been stable in terms of parole approval rate. If this continues at this level, the number of expected prison releases to parole should follow the projection set forth herein; if this fluctuates significantly, the projected number of prison releases to parole and the parole population under supervision will be impacted. A substantial decrease in the parole approval rate would result in slowed growth in the parole population, and this would contribute to a decrease in the rate of prisoners released from prison, and would have the effect of increasing the growth rate of the prison population. Conversely, if the parole approval rate increases, as long as parole considerations continue in the current and projected growth pattern, this would increase the rate of growth of the parole population under supervision, and would increase the rate increase of prison releases, thus decreasing the growth rate of the prison population.

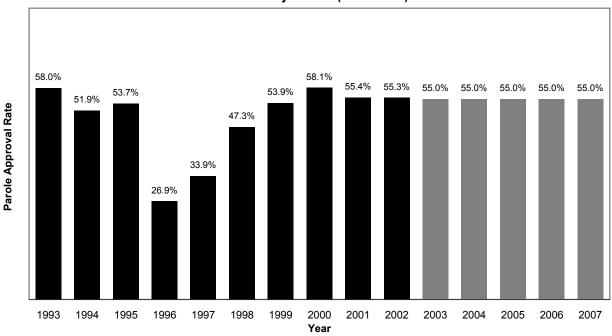


Chart 12-1. Parole Approval Rate Trends & Projections (1993-2007)

- The parole approval rate has seen some significant fluctuation in the past ten years. It
 appears that its natural "balance point" is in the 55% range. The parole approval rate
 dipped significantly in 1996 and 1997, though releases to parole declined only
 modestly due to an exorbitant number of considerations in those two years.
- After the unprecedented drop in the parole approval rate in 1996, the rate increased in each of the following four years, until reaching a high of 58.1% in 2000. In 2001 and 2002, the parole approval rate has dropped slightly from 2000, but has been near-identical during the past two years at 55.4% and 55.3%, respectively.

Projections for 2003-2007:

• The parole approval rate, for purposes of the projections, is assumed to continue at 55%, the same rate as the past two years. Since this is a rate, and highly dependent on the members of the parole board, it is a figure that cannot be projected using the same bases as other estimates; it is an assumption that is built into the model. Discussions with current Hawaii Paroling Authority personnel confirmed that the assumed projected rate of 55% was reasonable and in agreement with the patterns of the most recent past.

PROBATION

The felony probation population under supervision has increased by 3,574 in the past decade, or 39.5%. The rate of increase has not been as high as prison or parole populations, due in part to a generally decreasing percentage of sentences to probation as opposed to prison; also, during this time, police arrests have decreased by 16.7%, characterized by slight increases in violent offenses, and slight decreases in property and drug offenses (the latter two being the offenders more likely to receive sentences of probation).¹

From 1993-1996, the felony probation population under supervision increased by 29.6%. After this period of large growth, the increases have shown consistent increases but at more moderate levels. From 1996, the population has increased 7.6%, from 11,722 felony probationers to 12,617 reported in 2002. The probation population is projected to continue to grow at a modest level, similar to the trends seen in the past four years. It is expected that the population will increase by 818 felony probationers by 2007, an increase of 6.5% during in the next five years.

The number of felony probation sentences (placements) has increased 12.8% in the past decade, from 1,809 in 1993 up to 2,041 in 2002. It is expected that new felony probation sentences will continue to increase in a pattern similar to the past trends, up 13.4% in the next 4 years, and by 2007 will be near 2,400.

The number of placements is based on projected arrests and assumptions about future sentencing and conviction trends. As the population most highly correlated with arrest is projected to grow, it is the built-in assumption that arrests will increase. As arrests increase during this projected period, sentences to prison and probation will also increase. The ratio of probation-prison has remained relatively stable over the past five years, roughly ranging between 71-73% of the felony convictions. This is a trend downward from the previous five-year period. Given that the rate remains in this area (72% used in the model, and outlined in the next section of this report), this will result in the projected increases in the felony probation population under supervision.

Probation revokees that are re-sentenced to prison are expected to continue increasing during the projected period (2003-2007).²

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¹ The current and historical arrests tabulated by the SSMP are not inclusive of all offenses. It includes 22 offense types which account for roughly 25-30% of all arrests on any given year. The model has selected these offense types out, at the suggestion of Dr. Pablo Martinez, as these have been shown to be most indicative of trends and patterns in the criminal justice system in response to the arrest and the carrying out of sanctions.

² For simulation model purposes, in order to maintain the integrity of the data linkage between prison admissions and probation revocations, data in reference to probation revocations and prison admissions is taken from data collected through the Department of Public Safety (PSD). These numbers are different from the revocations reported by the Adult Probation Division, but this difference is more a result of a conceptual difference as opposed to a counting difference. What the model needs to capture for projections are the numbers of felony probationers who are revoked and re-sentenced to prison; PSD's figures of probation revocations that are re-sentenced to prison best capture this element necessary for

Chart 13-1. Felony Probation Supervision Caseload Trends & Projections (1993-2007)

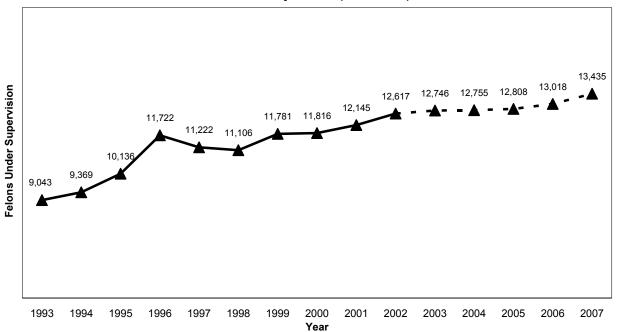
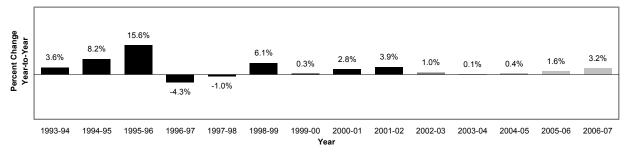


Chart 13-2. Percent Change Year-to-Year Trends & Projections (1993-2007)



• The number of felony probationers under supervision has increased 39.5% over the past decade. A large increase occurred in the years 1993-1996 (29.6%), and thereafter growth has slowed (between 1996 and 2002, the rate was 7.6% for the period).

Projections for 2003-2007:

• The number of felony probationers under supervision is expected to grow, but will continue to be characterized by low rates of growth. For the 2003-2007 period, the population is expected to grow by 818, or 6.5% during that period.

Chart 14-1. New Felony Probation Sentences Trends & Projections (1993-2007)

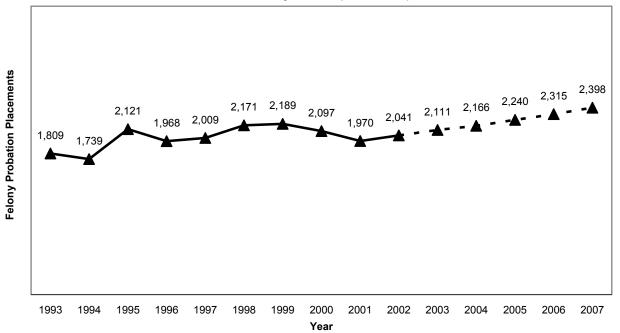
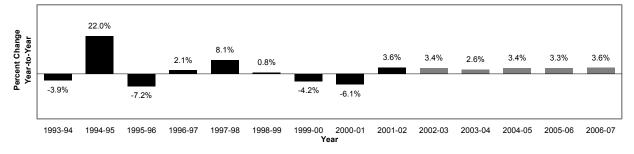


Chart 14-2. Percent Change Year-to-Year Trends & Projections (1993-2007)



Sentencing of felons to probation has shown modest increases, up 12.8% during the
past decade, from 1,809 in 1993 to 2,041 in 2002. A substantial rise was experienced
in 1995; thereafter, increases have been small. In 2001-2002, the number of felony
probation sentences increased 3.6% over the year before, the first notable increase in
3 years.

Projections for 2003-2007:

 Projected sentences to felony probation are expected to continue showing reserved increases. This figure is expected to go up by 357 in the next five years, or an increase of 17.4%. The number of felony probation sentences is tied to current sentencing and conviction trends and projected arrests which is, in turn, linked to projected population trends for the age group most highly correlated with the offenses captured in the model.

Chart 15-1. Total Felony Probation Revocations, Re-Sentenced to Prison Trends & Projections (1993-2007)

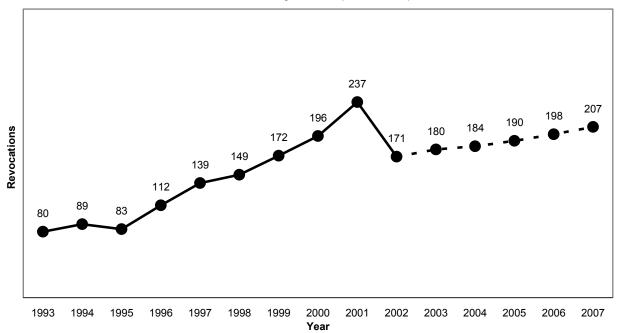
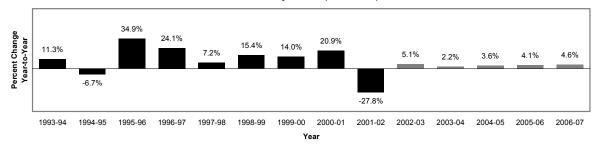


Chart 15-2. Percentage Change Year-to-Year Trends & Projections (1993-2007)



- The number of felony probationers who have their probation revoked and are resentenced to prison has increased by 113.8% during the past 10 years. A drop has occurred in the most recent year, though the trend in every year except one has been of consistent growth.
- The number probation revokees that are re-sentenced to prison, in any given year, is an overall very small amount of the probation population (1.4% in the year 2002). So, large %age increases should be tempered by the understanding that these numbers are small, and that large %age increases occur with even small gains.

Projections for 2003-2007:

Probation revocations are expected to increase by 20.7% in the next 5 years. This
indicates that the number of revocations will decrease in growth rate over this period.¹

¹ The benchmark used for projecting probation revocations, ratios of failure from year-to-year, is based on the failure rates reported in the 2000 study, "Felony Probation in Hawaii" (Crime Prevention & Justice Assistance Division, Department of the Attorney General). See references for full citation.

SENTENCING & CONVICTION

The number of felony offenders sentenced and convicted to either prison or probation is directly related to arrests for felony offenses. Despite a 16.6% decrease in the number of arrests, as captured by the simulation model, total felony convictions have increased by 15.2% during the past 10-year period, up from 2,454 in 1993 to 2,827 in 2002. Between 1993 and 1999, the biggest increases were experienced, up 26.7% during this timeframe, peaking in 1999 at 3,107. Over the past few years, these sizeable increases have slowed, and there has been a decline in the number of felony convictions in 2 of the past 3 years; though, in the most recent year of 2002, there was an increase of 5.6% from the year previous (the first notable jump since 1997-98). It is projected that the overall trend of increases in felony convictions will continue during the next five years, increasing by 17.8% during that span to 3,330 in 2007. These numbers are reflected in projected increases in arrests measured by the model, a function of population increases in the age group most highly correlated with arrest. As mentioned previously, the number of arrests for the offenses outlined in the simulation model has declined during this period by 16.6%. The past year though has shown a 3.9% increase in these arrests, the first significant increase since 1996-97. If arrest trends fluctuate widely from those projected, this will impact the projected number of felony convictions.

Over the past decade, the percentage of convictions to arrest (as measured in the model), has increased from 17.2% in 1993 to 23.7% in 2002. There was a significant increase in the conviction rate between 1997 and 1999, going from 18.9% to 26.5%. This rate has declined slightly in the past few years and has remained steady the past two years at 23.4% and 23.7%, respectively. The model has built in that this rate will continue along the lines of the two most recent years – projected out at 24% for subsequent years.

There has been a slight increase in the proportion of offenders being sentenced to prison as opposed to probation. In 1995 the percentage of convictions sentenced to prison was 19.9%; this increased over the next four years up to a percentage of 29.5% (i.e., 70.5% of the convictions for that year were sentences of probation). This ratio has tempered slightly in the past few years, but remains a ratio of roughly 72%/28% (probation/prison). This is the ratio that has been built into the model and delineates the sentencing and conviction to either prison or probation.

During the past decade, sentences to probation increased by 12.8% while sentences to prison increased by 21.9%. Between 1995 and 1999, there was a substantial increase in prison sentences, increasing by 73.9% during this time, from 528 in 1996 up to 918 in 1999. This sharp gain dissipated in the following years, decreasing by 14.4%. It is projected that sentences to probation will increase 17.5% in the next five years, and that sentences to prison will increase 18.6%.

Chart 16-1. Total Felony Convictions Trends & Projections (1993-2007)

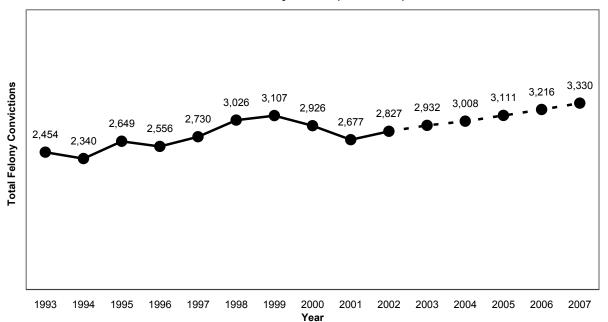
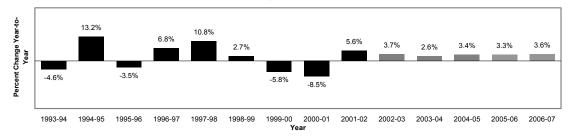


Chart 16-2. Percent Change Year-to-Year Trends & Projections (1993-2007)



• During this period, there was a 15.2% increase in the number of felony convictions. A large increase occurred between 1993 and 1999, up 26.7%; these large increases gave back to decreases in 2 of the following 3 years, which were down 9.0%. The most recent year's data demonstrated a 5.6% increase over the previous year.

Projections for 2003-2007:

• It is projected that total felony convictions will continue the general upward trend experienced in the previous decade. The number of felony convictions is expected to increase by 17.8% in the next five years, reaching 3,330 in the year 2007. Total felony convictions are based on projected arrests. Historically, arrests have been on the decline over the past decade, despite an increase in the most recent year. The arrests projected in the simulation model are a function of most recent arrest trends in combination with projected population figures for the age group most highly correlated with arrest. Significant fluctuations in arrest rates will have an impact on projected felony convictions.

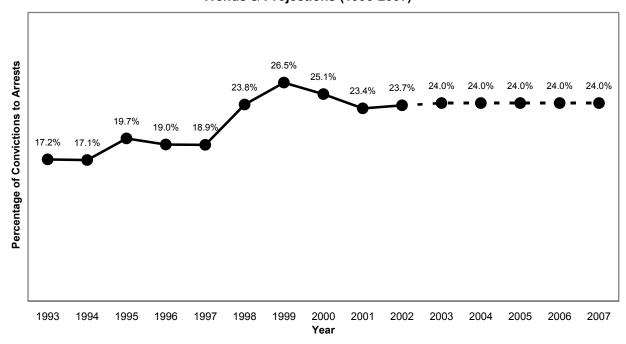


Chart 17-1. Percentage of Convictions to Arrest Trends & Projections (1993-2007)

Trends from 1993-2002:

- The percentage of convictions to arrest has increased over the past ten years, from 17.2% at the beginning of the period to 23.7% last calculated for 2002.
- The arrest to conviction rate was under 20% prior to 1997. After two years of significant increases in the rate, it appears to be rooted in the low- to mid- 20% range.
- For 2001 and 2002, the percentage or convictions to arrest held steady at 23.4% and 23.7%, respectively.

Projections for 2003-2007:

• It is projected that the percentage of convictions to arrest will remain at the level experienced in the last couple of years. For purposes of the projection, this rate is assumed to hold constant current policies and practices, so the level is to be held steady at 24.0%.

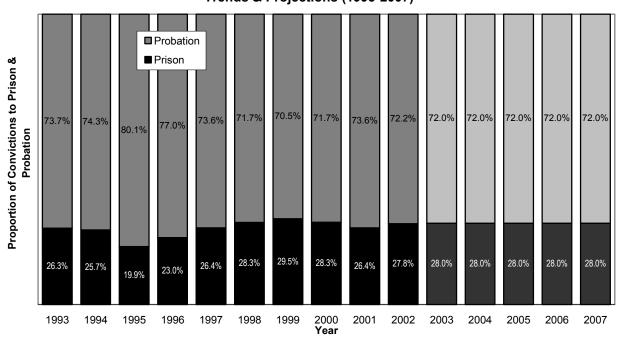


Chart 18-1. Proportion of Convictions Sentenced to Prison or Probation Trends & Projections (1993-2007)

- The proportion of convictions sentenced to prison or probation has seen in general a slight increase toward prison sentences over the past decade. In 1993, 26% of felony convictions were sentenced to prison and by the end of the period in 2002, this rate had increased to 27.8%.
- After a notable drop in the proportion of prison sentences occurred in 1994-1995, this
 increased in each of the next four years. The proportion has averaged around a
 72%/28% probation-prison ratio over the past five years.

Projections for 2003-2007:

• It is projected that the ratio of convictions sentenced to prison or probation will continue in the same vain that it has in the most recent half of the past decade. For purposes of the projection, this rate is assumed to hold constant current policies and practices, so the level is to remain steady at 72%/28% probation-prison ratio.

Chart 19-1. Sentences to Prison & Felony Probation Trends & Projections (1993-2007)

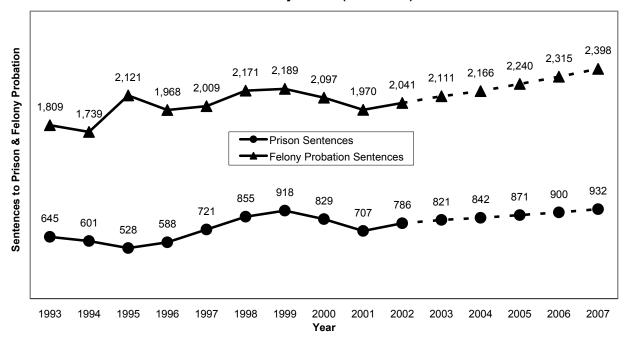


Chart 19-2. Sentences to Prison: Percent Change Year-to-Year Trends & Projections (1993-2007)

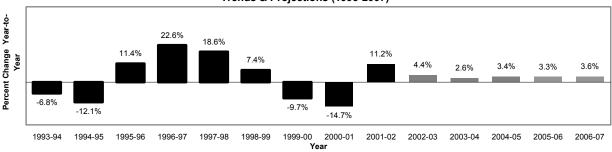
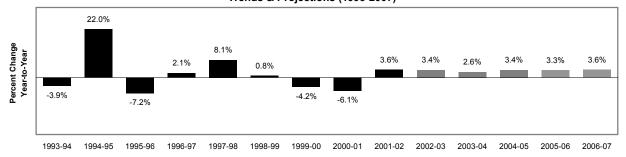


Chart 19-3. Sentences to Felony Probation: Percent Change Year-to-Year Trends & Projections (1993-2007)



• Felony sentences to prison and probation have both increased over the past decade. Sentences to probation have increased 12.8% during this period, while sentences to prison have increased 21.9%.

• Each sentence type has seen periods of notable increases; for probation, this occurred in 1994-95 while prison sentences increased four consecutive years between 1995 and 1999. After these periods of increases, levels have slowed and more modest increases have taken place in the past few years.

Projections for 2003-2007:

• It is projected that the most recent years of slowed rate increases will continue into the next five years. Probation sentences are expected to increase 17.5% by 2007, while prison sentences are anticipated to rise by 18.6%. These numbers are reflected in projected increases in arrests measured by the model, a function of population increases in the age group most highly correlated with arrest. Arrests for the offenses outlined in the simulation model have declined during this period by 16.6%. The past year though has shown a 3.9% increase in these arrests, the first significant increase since 1996-97. If arrest trends fluctuate widely from those projected, this will impact the projected number of felony convictions.

ARREST

Arrests in the State of Hawaii for index offenses¹ have declined for the period of 1993-2002. For purposes of simulation, the model captures arrest data on 22 different offenses.² These are specified below:

- Murder
- Rape
- Robbery
- Aggravated Assault
- Burglary
- Motor Vehicle Theft
- ❖ Arson
- Forgery
- Fraud
- Embezzlement
- Stolen Property
- Manufacture/Sale of Opiates/Cocaine
- Manufacture/Sale of Marijuana
- Manufacture/Sale of Synthetic Narcotic
- Manufacture/Sale of Non-Narcotic
- Possession Opiates/Cocaine
- Possession Synthetic Narcotic
- Possession Non-Narcotic
- Driving Under the Influence
- Sex Offenses
- Weapons
- Offenses Against Family & Child

There has been a 16.6% decline in these arrests over the past ten years, from 14,286 in 1993 to 11,914 reported in 2002. Including the past year, there has been only two years out of the past ten where arrests increased. From 2001 to 2002, it increased from 11,462 to 11,914, or a 3.9% increase. It is projected that arrests for these offenses will increase 16.5% by 2007, resulting in 1,961 more arrests annually by that time. This figure is based on projected population increases for the age group most highly correlated with arrest, ages 20-34. Historical and projected arrest data by specific offense and projected population figures can be found in the appendix.

1

¹ This includes murder, rape, robbery, aggravated assault, burglary, motor vehicle theft, arson, and larceny-theft.

² The current and historical arrests tabulated by the SSMP are not inclusive of all offenses. It includes 22 offense types which account for roughly 25-30% of all arrests on any given year. The model has selected these offense types, at the suggestion of Dr. Pablo Martinez, as these have been shown to be most indicative of trends and patterns in the criminal justice system in response to the arrest and the carrying out of sanctions.

³ Correlation coefficient value of .9008.

Chart 20-1. Adult Arrests, Selected Offenses Used in the Simulation Model Trends & Projections (1993-2007)

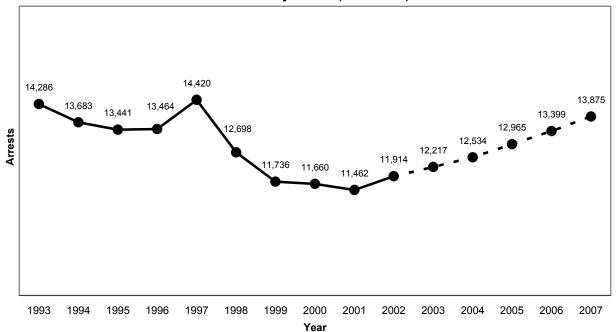
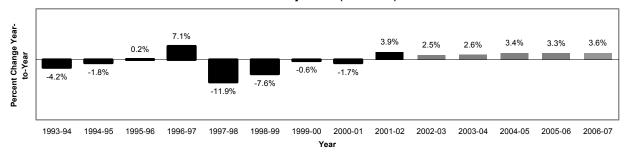


Chart 20-2. Percent Change Year-to-Year Trends & Projections (1993-2007)



• Arrests have declined during this period by 16.6%. Only two of the past years have shown increases, a small spike in 1997, followed by continued decreases, and then a slight increase of 3.9% in the last reported year.

Projections for 2003-2007:

Adult arrests for these 22 offenses are expected to increase 16.5% through the year 2007, approaching levels experienced five years previous. This figure is based on projected population increases of the age group (20-34) most highly correlated¹ with arrest, and assumes that current policing, reporting, and arrest trends will remain stable during this timeframe. Wide fluctuations in these areas will impact the projected arrests. Population forecasts are located in the appendix.

1

¹ Correlation coefficient value of .9008.

METHODOLOGY

The projections generated from the simulation model is based on the flow of offenders into the system and then linked within. The figure below outlines the basis for creating prison and community supervision population forecasts. In logical sequence, the process follows the following schema:

- Historical and projected population figures are gathered for all age groups.
- ➤ Adult arrest data is captured for 22 offenses measured by the model.
- Using historical arrest and population figures, various age groups are collapsed in order to find the group that is most highly correlated with historical arrest data. For this model, the age group most highly correlated was 20-34 years of age.
- With projected population data, projected arrests are then generated.

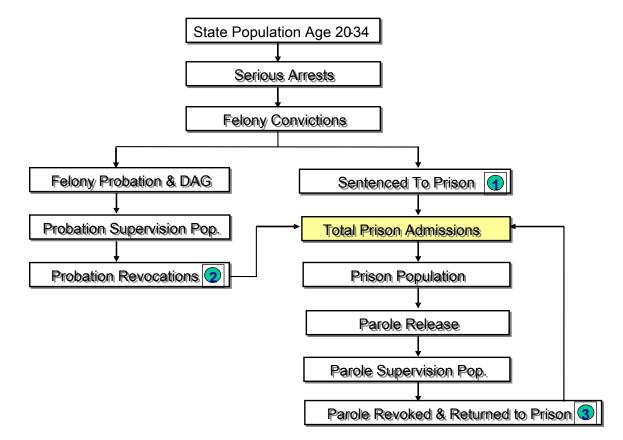


Figure 1. Methodology Flowchart

Historical data on felony sentencing and conviction trends is gathered, and assumed future trends are applied to the projected arrest data. This will produce projections of felons sentenced to prison directly from the courts and those sentenced to probation. (note: the points of entry into the prison population are noted by the numbers, "1", "2", and "3").

(continued on next page)

- Projected probation sentences (placements) are then used to produce the future probation population under supervision, along with projected probation revocations and average length of time on probation. Benchmarks on probation failure rates and construction of survival tables of probationers on probation are then used to generate probation revocations that are re-sentenced to prison.
- Historical and current data on prison is collected: population, admissions, and releases. Using data on the current population and the projected admissions by specific offense, prison releases are projected. The production of projected releases to parole, then allows one to ascertain the future parole population under supervision, along with projected parole revocations and average length of time on parole. Benchmarks on parole failure are then used to generate parole revocations that are returned to prison.
- Projected admissions to prison are then produced from the three points of entry. These are lined up and adjusted in concert with reported prison admissions.
- With projected prison admissions and releases, projections of the prison population are then produced. Again, linkage between the sources of inputs and outputs are joined and adjusted to ensure the integrity of the model is upheld and trends accounted for and synchronized at all points of the model.

The below figure is a simplified flow chart of how the prison population is projected without including all of the separate inputs from parole and probation.

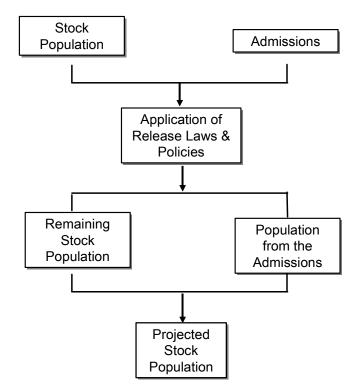


Figure 2. Methodology Flow Chart of Prison Population Projections

This figure outlines the flows to and from the prison and community supervision populations, and how they are interrelated in the projection model. This does not include the state population projections and the arrest projections produced beforehand. However, this gives a plain overview of the interactions and linkages between the separate parts that are considered in the model, captured, and used in producing projections.

Stock (previous per.) + Admission Contract
Split Sentence Release (SFP) **PROBATION** = Stock (current per.) Probation Violators Newly Sentenced Felons Parole Violators **INCARCERATION** (Prison only) ParoledDischarged, Max. out • Probation Violators • Direct Sentence Felon Stock (previous per.) Return after revocation • First released from prison • Technical Violation New Conviction **PAROLE** - Release Deceased Suspended = Stock (current per.)

Figure 3. Methodology Flow Chart of System Populations

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Irwin, Katherine, Joseph J. Leon, and Theresa Fraser. (2002). Department of Public Safety, State of Hawaii, Corrections Management Information System (CMIS): A Records Verification Study of a Probability Sample of Prisoner Records, 2002. State of Hawaii: Department of Public Safety.

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APPENDIX A:

Accompanying Projection Charts

Chart A-1. Average Monthly Prison Population Trends & Projections (1993-2007)

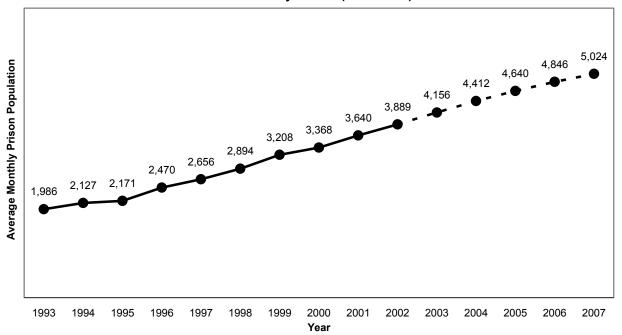


Chart A-2. Percent Change Year-to-Year Trends & Projections (1993-2007)

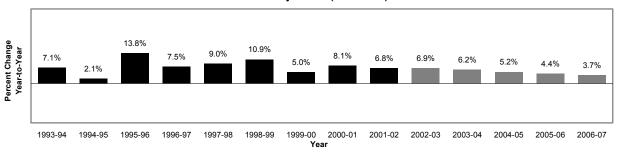


Chart A-3. Total Prison Admissions: Percent Change Year-to-Year Trends & Projections (1993-2007)

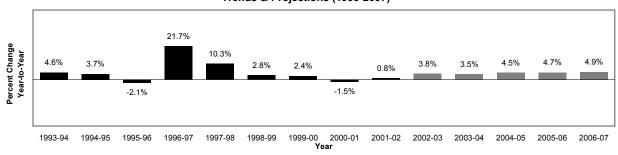


Chart A-4. Prison Admissions, Direct Sentenced Felons: Percent Change Year-to-Year Trends & Projections (1993-2007)

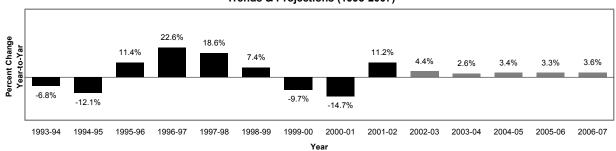


Chart A-5. Prison Admissions, Probation Revocation: Percent Change Year-to-Year Trends & Projections (1993-2007)

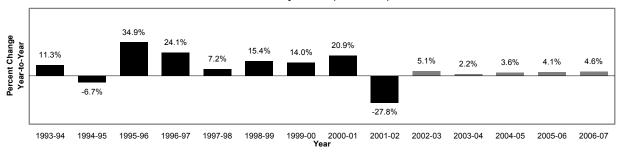


Chart A-6. Prison Admissions, Parole Revocations: Percent Change Year-to-Year Trends & Projections (1993-2007)

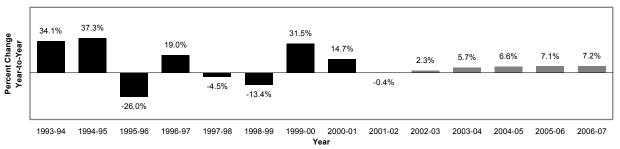
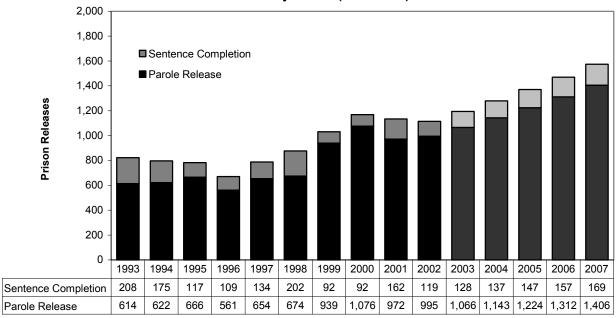


Chart A-7. Prison Releases by Type of Releases Trends & Projections (1993-2007)



Year / Actual Figures

Note: Sentence completions used herein are reported in calendar years, as opposed to fiscal years, due to the data captured. It is assumed that these numbers, especially when compiled over a 10-year period and then used in retrospect to forecast for 5 years, will not impact the projections to any significant level.

Chart A-8. Average Monthly Parole Population Under Supervision Trends & Projections (1993-2007)

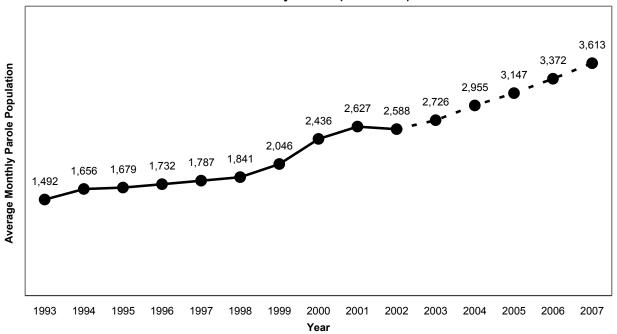


Chart A-9. Percent Change Year-to-Year Trends & Projections (1993-2007)

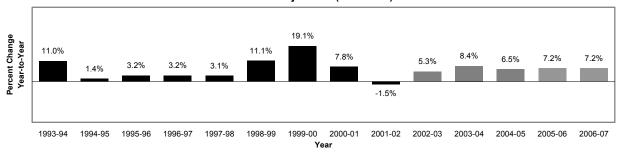


Chart A-13. Felony Probation Average Monthly Supervision Caseload Trends & Projections (1993-2007)

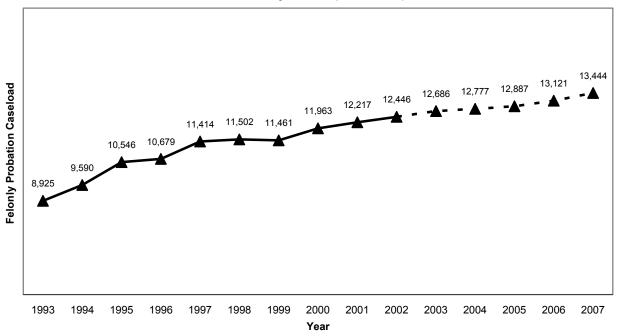


Chart A-14. Percent Change Year-to-Year Trends & Projections (1993-2007)

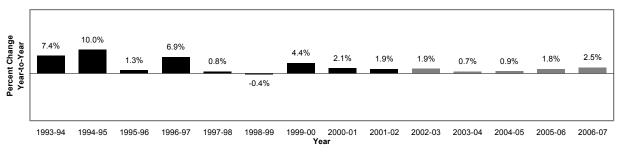
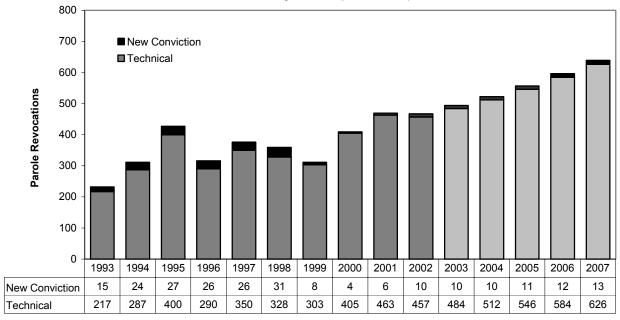
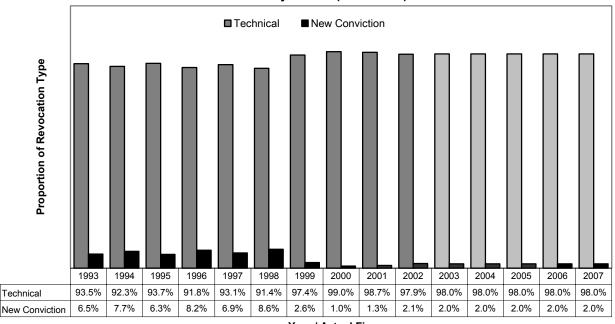


Chart A-10. Parole Revocations, Returned to Prison by Revocation Type Trends & Projections (1993-2007)



Year / Actual Figures

Chart A-11. Parole Revocations to Prison, Proportion of Revocation Type Trends & Projections (1993-2007)



Year / Actual Figures

Chart A-12. Average Length of Stay on Parole (Months)
Trends & Projections (1993-2007)

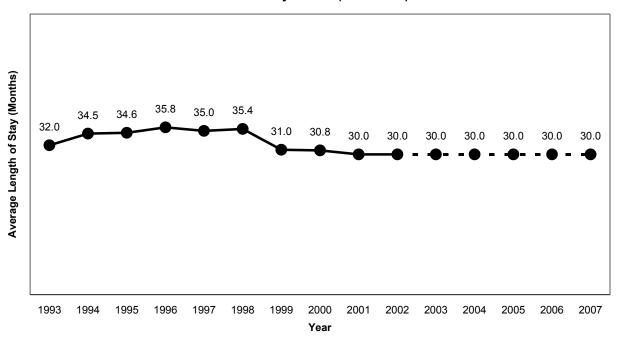
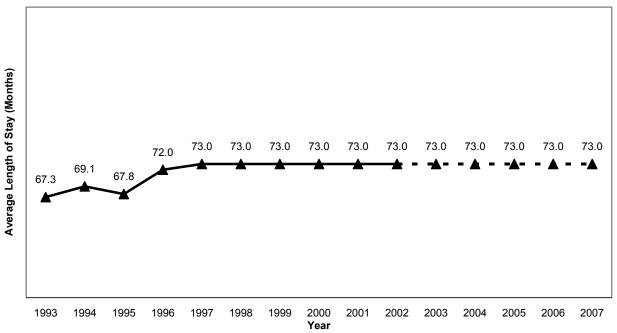


Chart A-15. Average Length of Stay on Probation (Months)
Trends & Projections (1993-2007)



APPENDIX B:

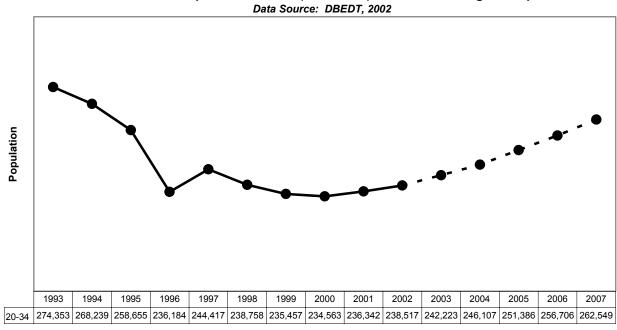
Historical Figures & Projections of Arrest by Offense Type

Population Projections

Table B-1: Historical & Projected Adult Arrests by Specific Offense (1993-2007)

Offense	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
murder	51	54	58	42	42	18	49	40	29	40	41	42	44	45	47
rape	118	123	92	113	108	111	88	88	119	101	104	106	110	114	118
robbery	310	315	388	379	361	375	293	344	320	327	336	344	356	368	381
aggravated assault	482	505	587	500	598	506	569	626	601	614	630	646	668	691	715
burglary	871	895	860	893	946	744	614	608	602	623	639	656	678	701	726
motor vehicle	1,066	1,341	1,447	1,022	1,048	874	672	903	1,012	886	908	932	964	996	1,031
arson	22	29	33	28	15	26	13	27	15	19	19	20	20	21	22
forgery	295	378	368	416	410	382	345	437	563	461	472	485	501	518	536
fraud	568	565	532	567	596	543	440	433	518	476	488	501	518	535	554
embezzlement	74	76	59	63	53	36	35	38	41	39	40	41	42	44	45
stolen property	190	181	317	248	192	135	75	93	136	104	107	110	113	117	121
m/s opiates/cocaine	411	461	398	401	351	354	363	320	294	334	342	351	363	375	389
m/s marijuana	204	154	155	126	176	129	108	116	97	110	112	115	119	123	128
m/s synthetic narcotic	6	17	22	38	36	21	44	22	12	27	27	28	29	30	31
m/s non-narcotic	36	37	75	66	100	69	122	177	175	162	166	171	177	182	189
poss. opiates/cocaine	1,076	1,195	1,070	1,135	1,206	786	647	535	444	555	569	584	604	624	646
poss. synthetic narcotic	34	69	124	155	254	255	247	181	88	176	180	185	191	198	205
poss. non-narcotic	290	304	216	175	315	188	190	477	697	468	480	493	510	527	545
dui	5,141	4,267	4,057	4,706	5,065	4,750	4,717	4,165	3,672	4,287	4,396	4,510	4,665	4,821	4,993
sex offenses	458	337	310	293	311	329	361	259	336	327	335	344	356	368	381
weapons	618	573	447	359	343	305	221	287	279	269	276	283	293	303	314
family & child (v. offenses)	1,965	1,807	1,826	1,739	1,894	1,762	1,523	1,484	1,412	1,510	1,548	1,589	1,643	1,698	1,759
Total	14,286	13,683	13,441	13,464	14,420	12,698	11,736	11,660	11,462	11,914	12,217	12,534	12,965	13,399	13,875

Chart B-1. Population Trends (1993-2007) for Correlated Age Group



Year / Actual & Projected Figures

APPENDIX C:

Definitions of Criminal Offenses Used in the Model Projections

DEFINITIONS OF CRIMINAL OFFENSES USED IN PROJECTIONS

AGGRAVATED ASSAULT: An unlawful attack by one person upon another for the purpose of inflicting severe or aggravated bodily injury; attempted murder. This type of assault usually is accompanied by the use of a weapon or by means likely to produce death or great bodily harm. It is not necessary that injury result from an aggravated assault when a gun, knife, or other weapon is used which could and probably would result in serious personal injury if the crime were successfully completed. Attacks by personal weapons, such as hands, fists, feet, etc., which result in serious or aggravated injury.

ARSON: Any willful or malicious burning or attempt to burn, with or without intent to defraud, a dwelling house, public building, motor vehicle or aircraft, personal property of another, etc.

BURGLARY: The unlawful entry of a structure to commit a felony or a theft. Includes forcible entry, unlawful entry where no force is used, and attempted forcible entry where no entry occurs.

DRIVING UNDER THE INFLUENCE: Driving or operating any vehicle or common carrier while drunk or under the influence of intoxicants.

DRUG ABUSE VIOLATIONS: Include all violations of state and local laws relating to the unlawful possession, sale, use, growing, manufacturing, and making of illegal drugs.

EMBEZZLEMENT: Misappropriation or misapplication of money or property entrusted to one's care, custody, or control.

FORCIBLE RAPE: The carnal knowledge of a female forcibly and against her will. Assaults or attempts to commit rape by force or threat of force are also included. Statutory rape (without force), any sexual assaults against males, and other sex offenses are not included in this category.

FORGERY AND COUNTERFEITING: All offenses dealing with the making, altering, uttering, or possession of, with intent to defraud, anything false in the semblance of what is true.

FRAUD: Fraudulent conversion and obtaining money or property by false pretenses. Includes bad checks (except forgeries and counterfeiting), confidence games, and unauthorized withdrawal of money from an automatic teller machine.

MOTOR VEHICLE THEFT: The theft or attempted theft of a motor vehicle.

MURDER: The willful (non-negligent) killing of one human being by another.

OFFENSES AGAINST THE FAMILY AND CHILDREN: Include all charges of nonsupport, and neglect or abuse of family and children. Examples include desertion, abandonment, or nonsupport of spouse or child; neglect or abuse of spouse or child; and nonpayment of alimony.

ROBBERY: The taking or attempting to take anything of value from the care, custody, or control of a person or persons by force or threat of force or violence and/or by putting the victim(s) in fear. While robbery has the attributes of a property crime, it is grouped with violent crimes due to the additional attribute of force or the threat of force.

SEX OFFENSES: Include indecent exposure, incest, statutory rape (no force), any sexual assaults against males, other offenses against common decency and morals, and all attempts. Do not include forcible rape, prostitution, and commercialized vice.

STOLEN PROPERTY: Buying, receiving, and possessing stolen property, including attempts.

WEAPONS OFFENSES: Include unlawful manufacture, sale, or possession of deadly weapons; unlawful carrying of deadly weapons, concealed or openly; using, manufacturing, etc. silencers; furnishing deadly weapons to a minor; and all attempts to commit any of the above.